FIG._1A

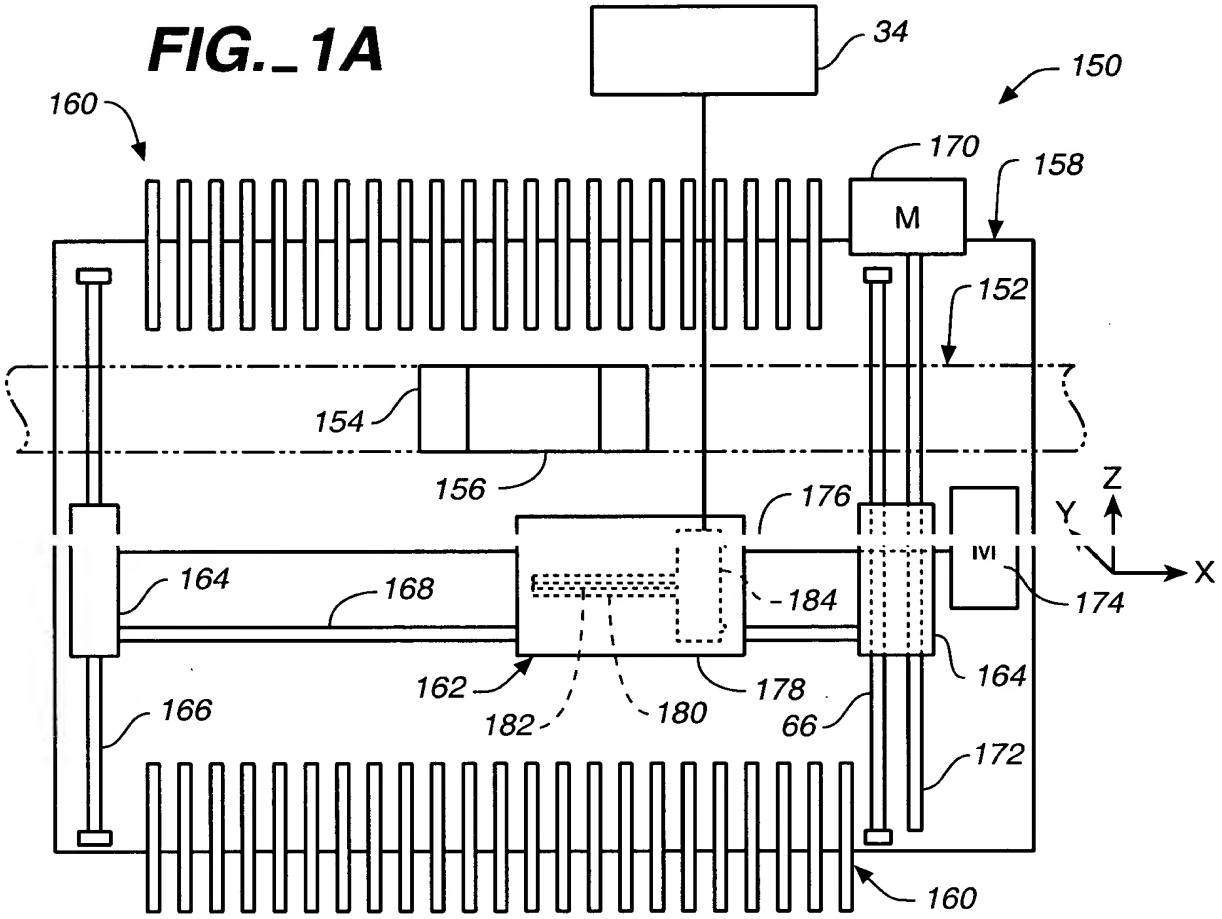
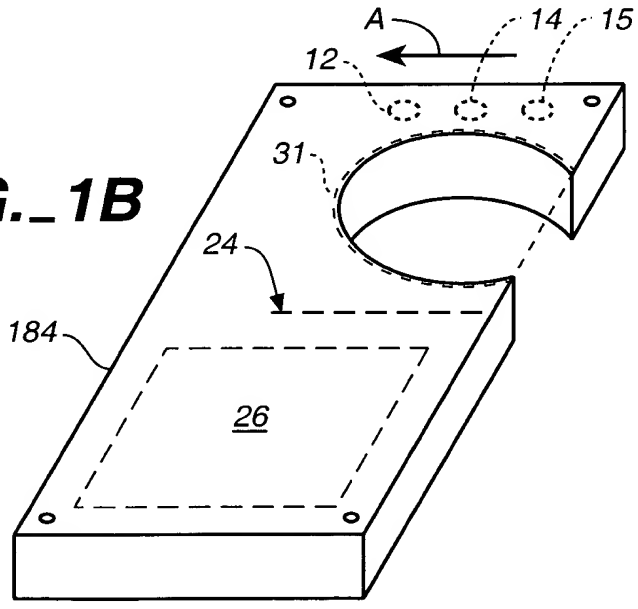

34
150
160
170
158
M
152
154
156
176
Z
Y
X
164
168
184
174
162
178
164
166
182
180
66
172
160

FIG._1B


A
14
15
12
31
24
184
26

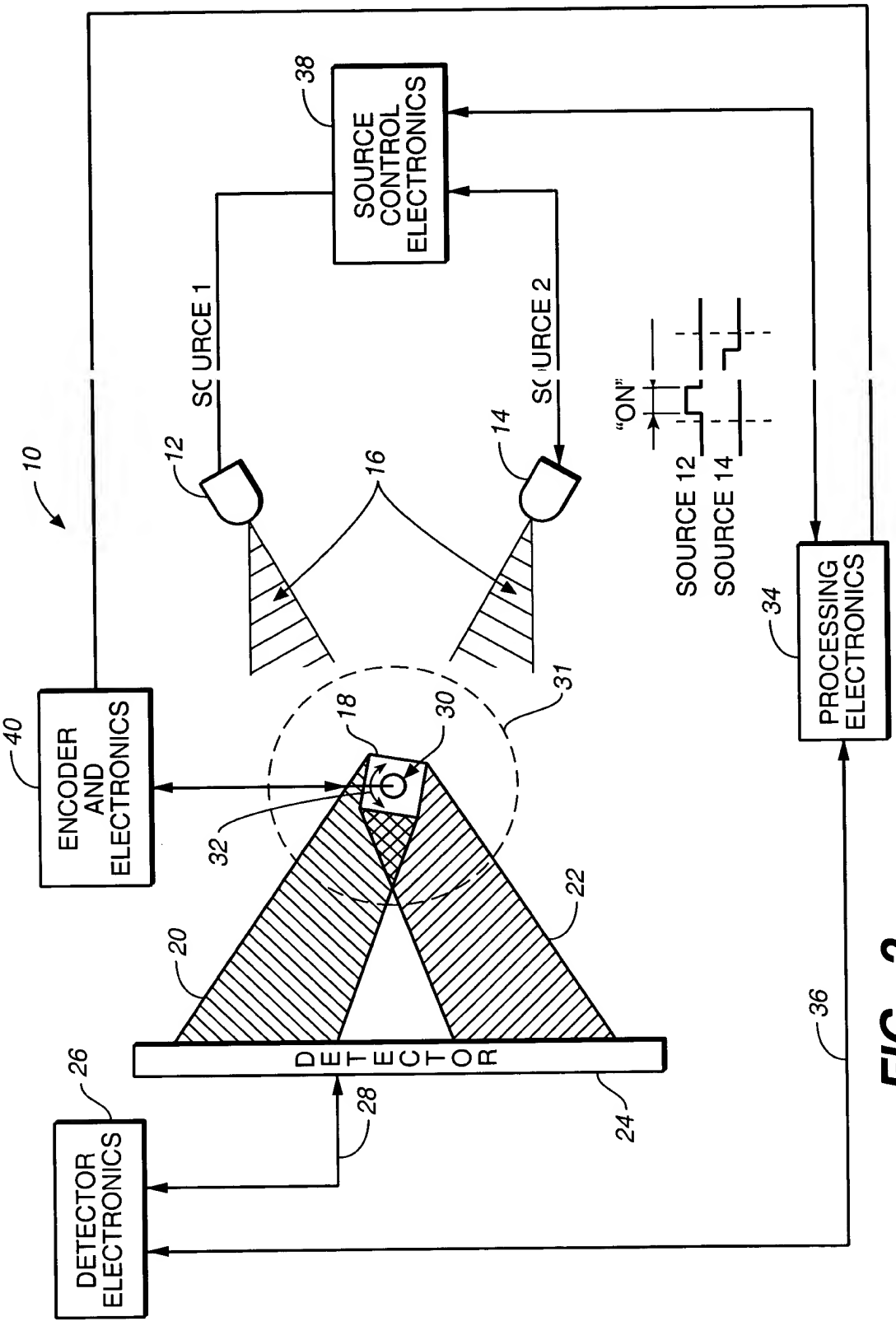

10
38
SOURCE CONTROL ELECTRONICS
SOURCE 1
SOURCE 2
12
14
16
"ON"
SOURCE 12
SOURCE 14
34
PROCESSING ELECTRONICS
40
ENCODER AND ELECTRONICS
18
30
31
32
22
20
DETECTOR
24
26
28
DETECTOR ELECTRONICS
36

FIG._2

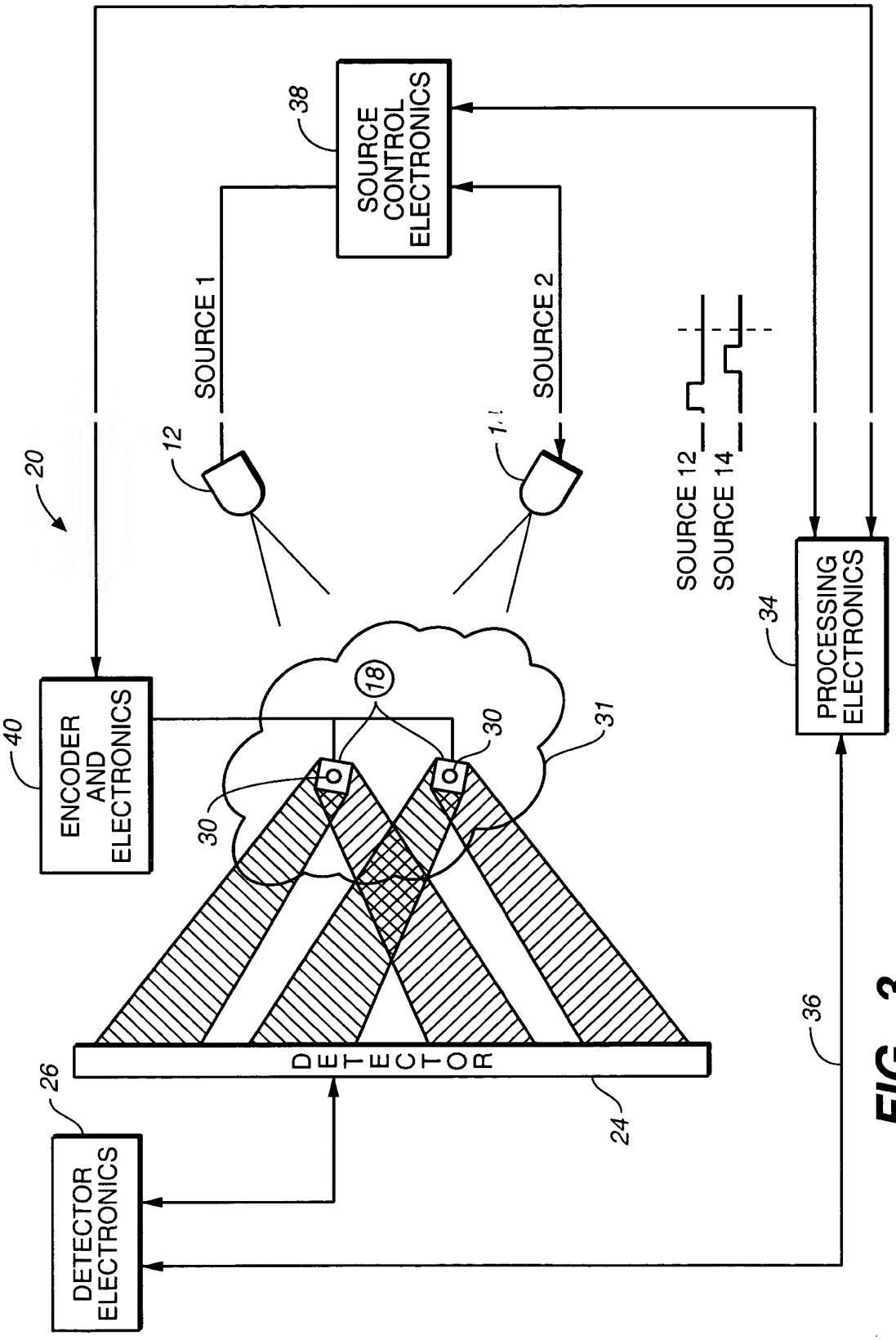

SOURCE CONTROL ELECTRONICS
38
SOURCE 1
SOURCE 2
12
11
20
SOURCE 12
SOURCE 14
34
PROCESSING ELECTRONICS
ENCODER AND ELECTRONICS
40
18
30
31
30
DETECTOR
26
24
36
DETECTOR ELECTRONICS

FIG._3

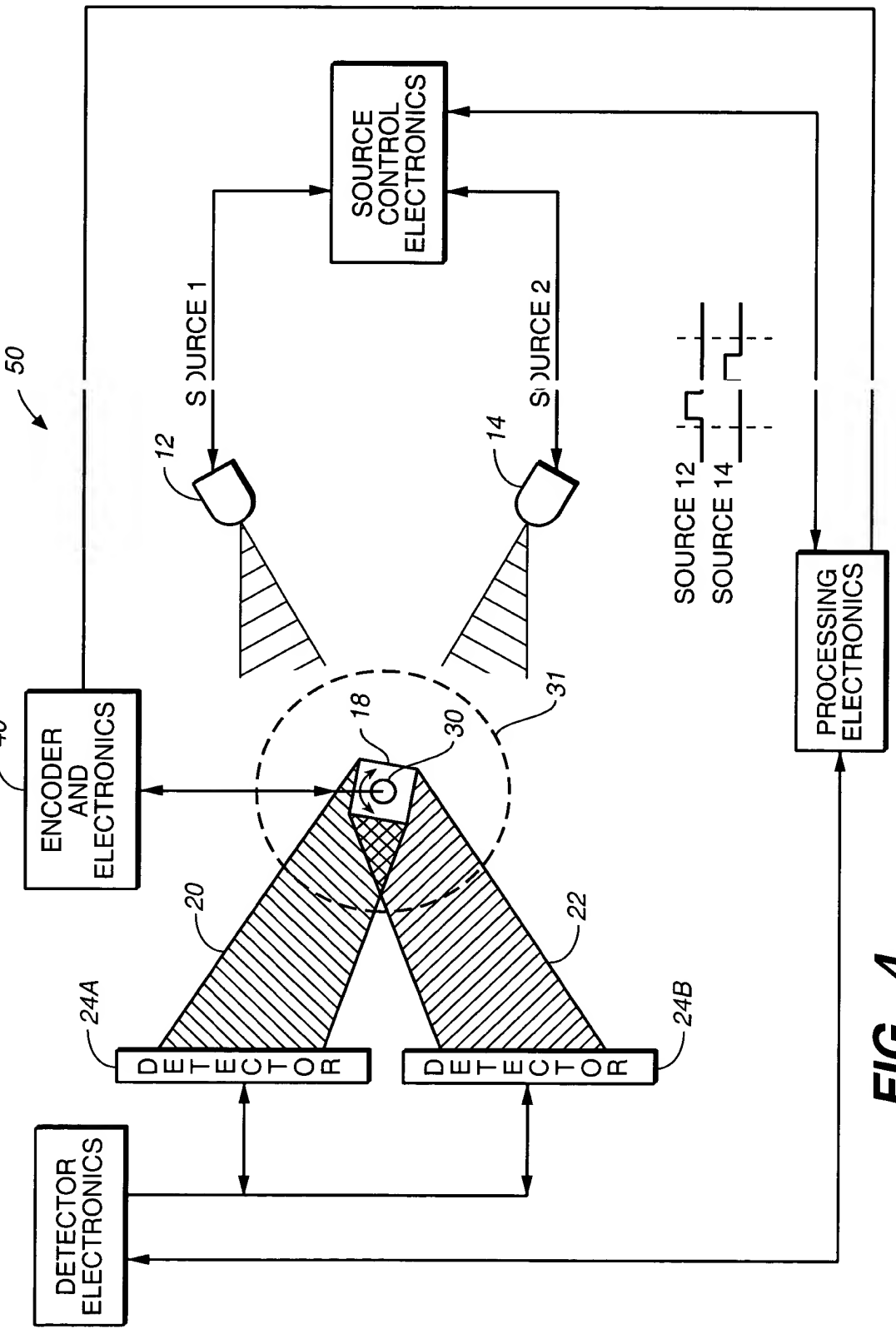

50
SOURCE CONTROL ELECTRONICS
SOURCE 1
SOURCE 2
12
14
SOURCE 12
SOURCE 14
PROCESSING ELECTRONICS
ENCODER AND ELECTRONICS
40
18
30
31
20
22
24A
24B
DETECTOR
DETECTOR
DETECTOR ELECTRONICS

FIG._4

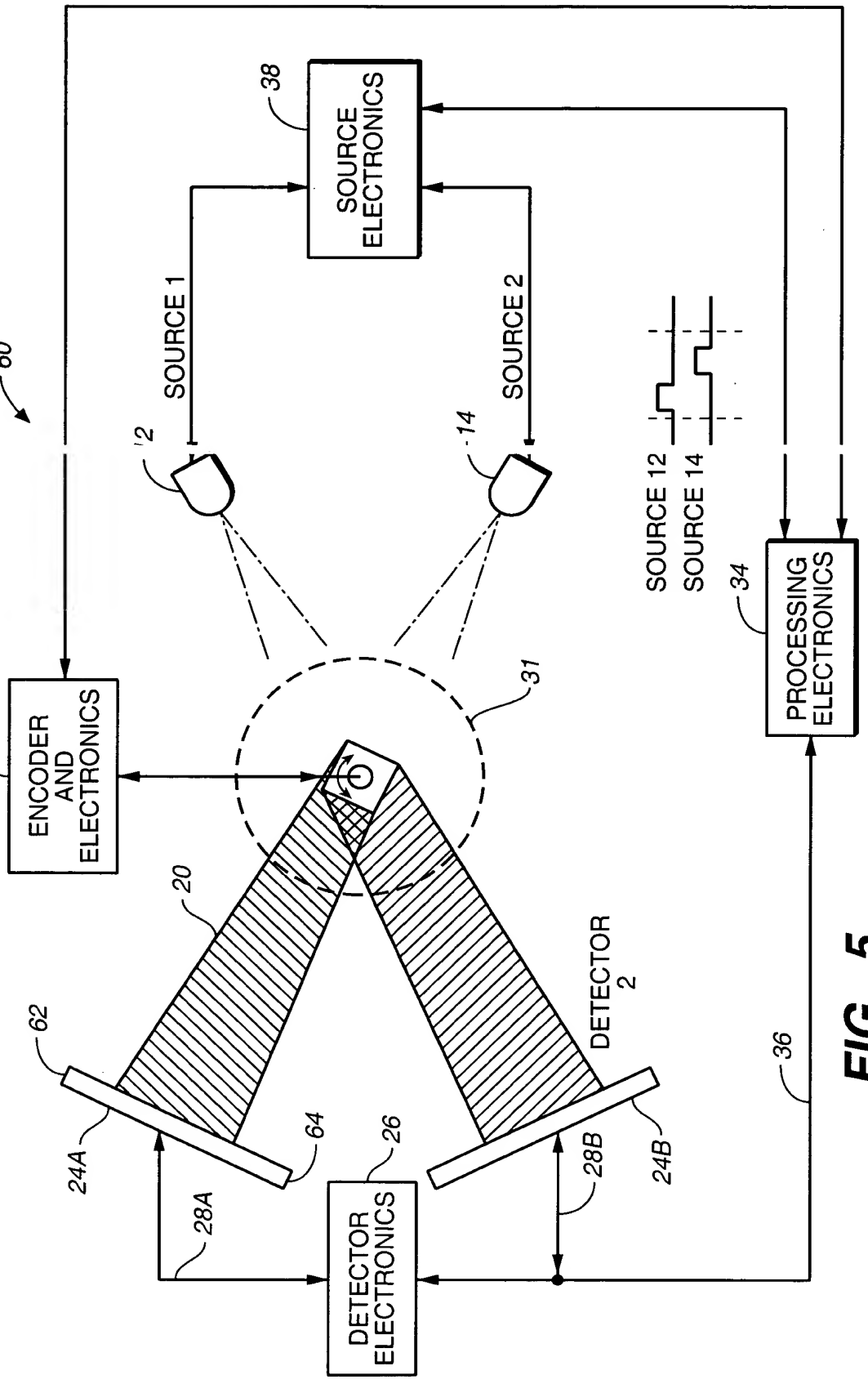

60
38
SOURCE ELECTRONICS
SOURCE 1
SOURCE 2
12
14
SOURCE 12
SOURCE 14
34
PROCESSING ELECTRONICS
40
ENCODER AND ELECTRONICS
31
20
DETECTOR 2
62
24A
64
26
28A
28B
24B
DETECTOR ELECTRONICS
36

FIG._5

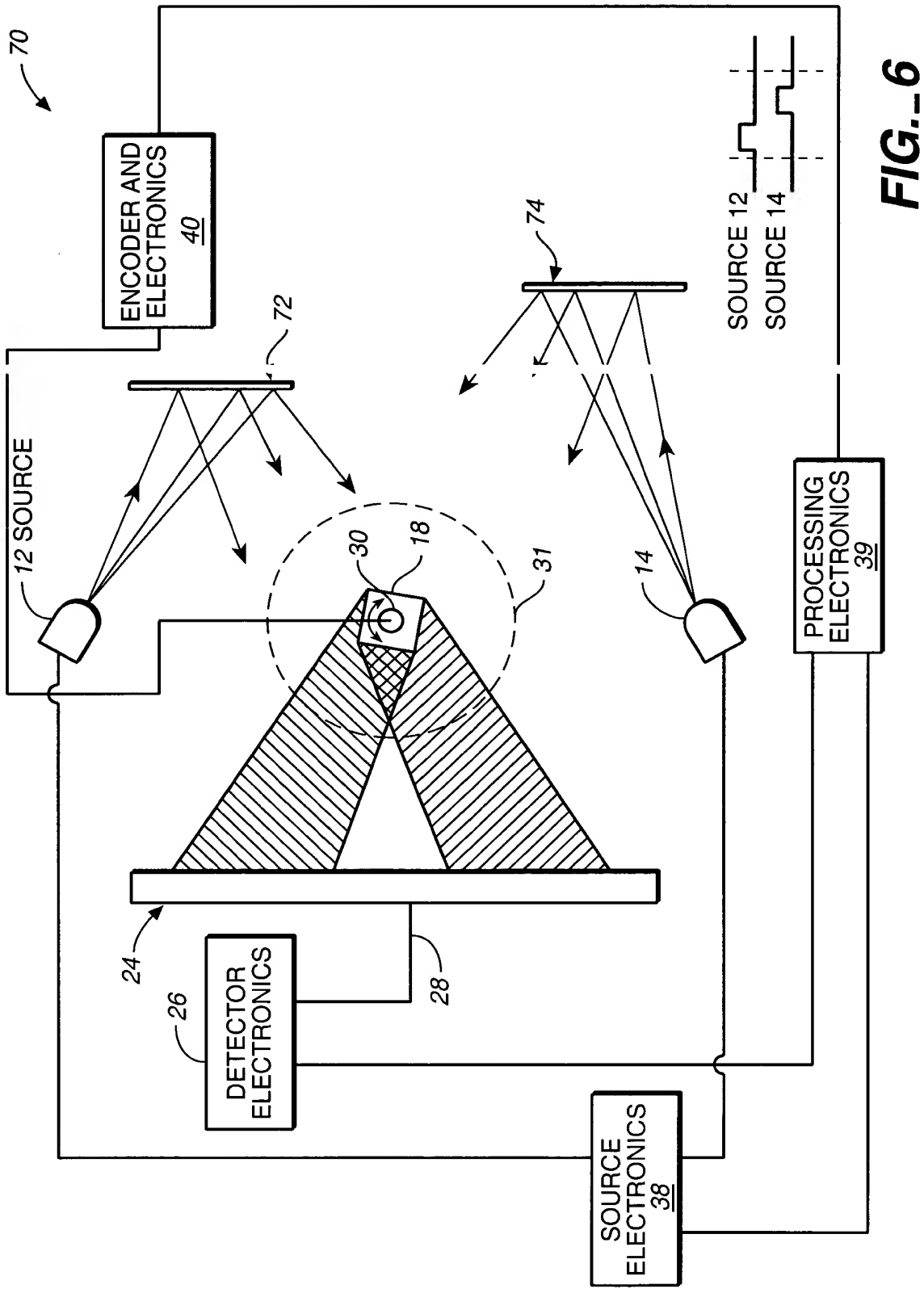

70
ENCODER AND ELECTRONICS 40
72
74
SOURCE 12
SOURCE 14
12 SOURCE
30
18
31
14
PROCESSING ELECTRONICS 39
24
26
DETECTOR ELECTRONICS
28
SOURCE ELECTRONICS 38

FIG._6

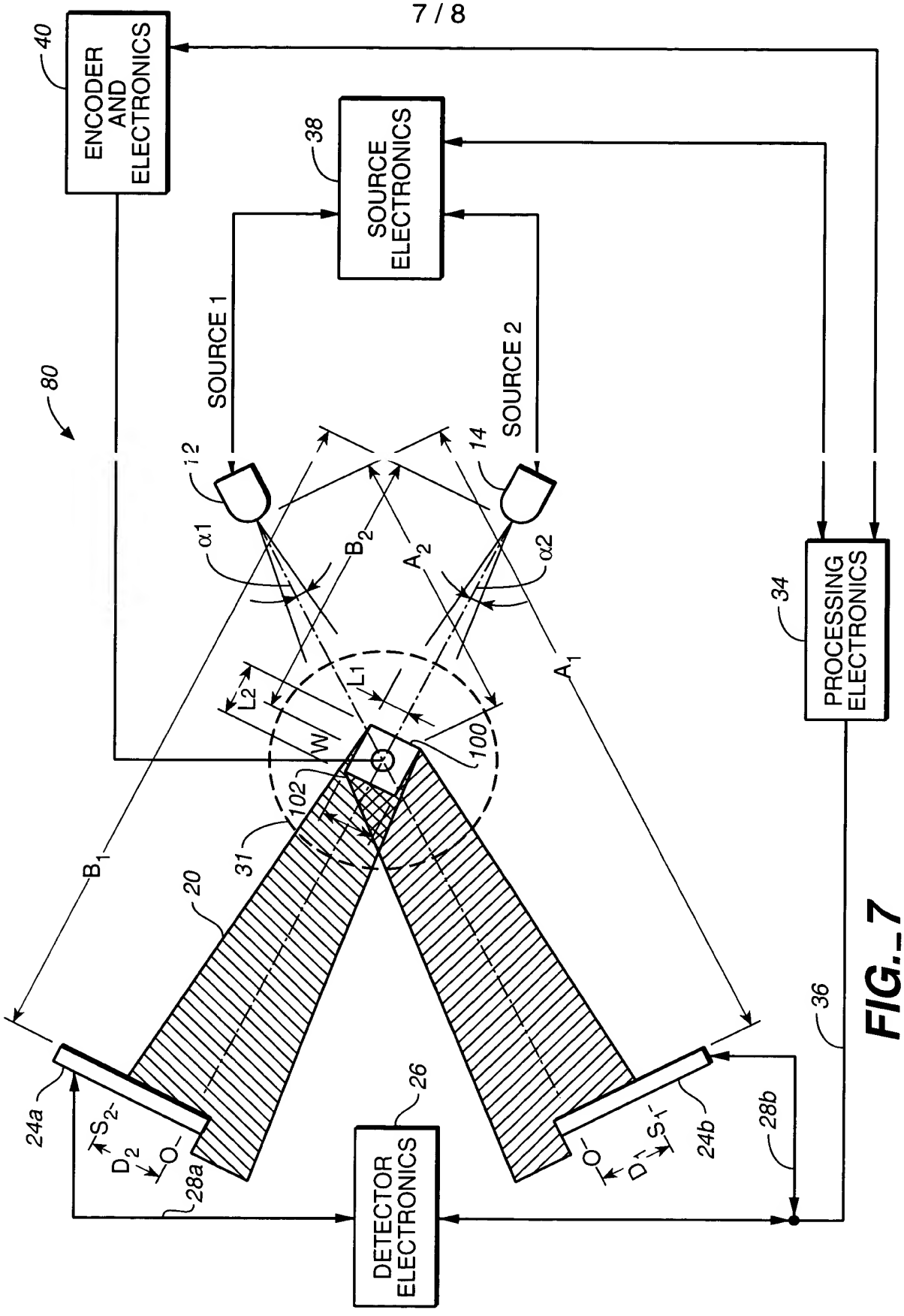

ENCODER AND ELECTRONICS
40
SOURCE ELECTRONICS
38
SOURCE 1
SOURCE 2
80
12
14
α1
α2
B2
A2
A1
B1
L1
L2
W
100
102
31
20
PROCESSING ELECTRONICS
34
36
24a
24b
28a
28b
S2
D2
O
S1
D1
DETECTOR ELECTRONICS
26

FIG._7

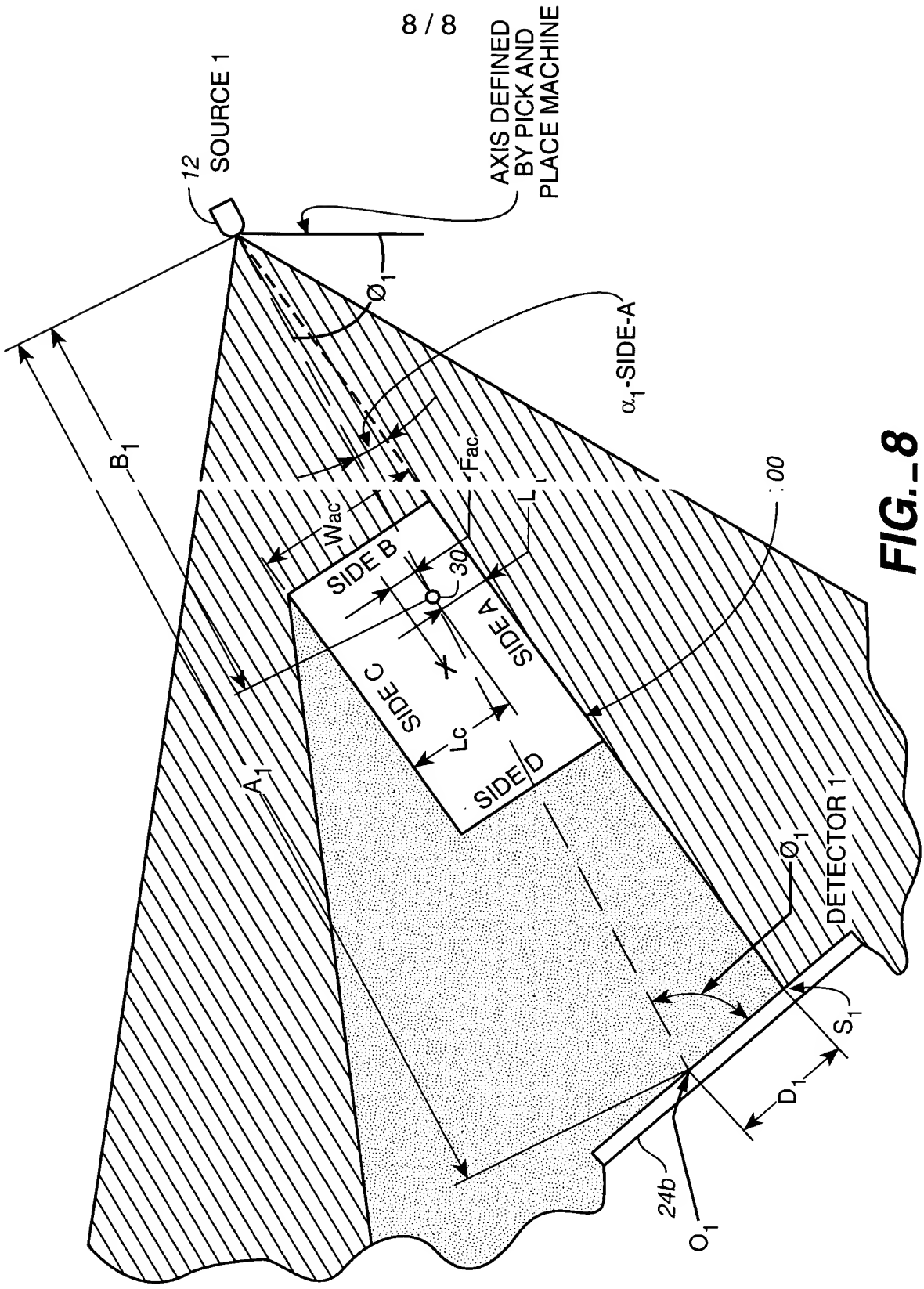

12
SOURCE 1
AXIS DEFINED BY PICK AND PLACE MACHINE
$\emptyset_1$
α_1-SIDE-A
B_1
Fac.
L
Wac
SIDE B
30
SIDE A
SIDE C
Lc
SIDE D
A_1
00
$\emptyset_1$
DETECTOR 1
S_1
D_1
24b
O_1

FIG._8